

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/827,531	SMITH ET AL.	
	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amended claims submitted on 10/12/05.
  2. ☒ The allowed claim(s) is/are 1-18.
  3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                 | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20051013</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____  |

*Susanna Diaz*  
**SUSANNA M. DIAZ**  
**PRIMARY EXAMINER**  
AU 3623

### **DETAILED ACTION**

1. Claim 19 has been canceled. Claims 1-18 are pending in the application.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Venk Krishnamoorthy on October 11, 2005.

The Amendment filed on 7/27/05 was incomplete. The Applicant did not address claim 16, inadvertently and incorrectly stating that claim 16 did not exist. The Examiner contacted the attorney of record, Venk Krishnamoorthy, to obtain an amended copy of the claims that included every claim to be considered for patentability. The Examiner also obtained permission from Mr. Krishnamoorthy to enter the amended claims as an Examiner's Amendment in order to expedite the allowance process.

***Response to Amendment***

***Drawings***

3. The drawings were received on 7/27/05. These drawings are acceptable.
4. All previous drawing rejections made in the Office Action dated 4/27/05 are withdrawn in view of replacement drawings and amendments made to the specification.

***Specification***

5. Amendments to the specification are accepted.

***Allowable Subject Matter***

1. Claims 1-18 are allowed. The following is a statement of reasons for the indication of allowable subject matter: The cited prior art taken alone or in combination fails to teach the claimed invention set forth in claims 1-18.

Specifically, the invention set forth in claims 1-18 is directed to a (computer-implemented) method, machine-readable medium, and apparatus for forecasting item availability in view of reported and unreported sales, and a plurality of customer inputs,

Art Unit: 3623

including when they expect to arrive at the store, the number of units they desire to purchase, and how frequently the product inventory levels and availability forecasts are updated.

The Applicant has acted as their own lexicographer and has employed special definitions for:

- “shop time” - the number of time increments expected to elapse before customer visits store to purchase an item
- “delay time” – difference between current time and shop time
- “experience level” – number of time units of observation for the sales of a particular product.

Prior art systems do not teach the step of performing a convolution of sales rate distributions in order to obtain a probability of item availability of a product at an expected time of transaction.

Prior art systems do not teach the step of summing a plurality of convolution values in order to obtain a probability of the availability of the item at the end of the delay time.

Prior art systems do not teach the step of calculating a sales variance for an unreported sales rate of an item based on an experience level parameter.

The closest prior art on record is Gupta et al. (PGPub US2003/10074349), who teaches a method and apparatus for displaying the real-time status of product availability, orders, and sales revenue. Gupta et al. teaches the step of querying a database at regularly recurring time intervals for information regarding product availability. Gupta et al. teaches the step of performing statistical analysis on (reported) sales data, but does not teach the step of calculating the unreported sales rate. While the teachings of Gupta et al. are used in obtaining information regarding the availability of products, it does not teach or fairly suggest the combination of the steps of: generating a convolution of probability distributions modeling product sales, representing sales using a negative binomial probability distribution or using an "experience level" parameter to determine the sales rate (reported or unreported) of an item.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Art Unit: 3623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971.

The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Choi  
Examiner  
Art Unit 3623

PC

October 13, 2005

*Susanna Diaz*  
SUSANNA M. DIAZ  
PRIMARY EXAMINER

*AU 3623*